

IN THE SPECIFICATION:

Please replace the Summary of Invention section on page 4, line 25 through page 9, line 16 with the following amended section:

-- It is an object of the present invention to provide an optical scanning apparatus, in which the laser unit is configured to be shifted by the shift adjusting means in a predetermined direction with respect to the optical axis of the incident optical system or/and the tilt angle of the semiconductor laser chip is set to fall within an allowable range so as to make an illuminance distribution, obtained when a scanned surface is scanned with scanning lines, almost symmetrical about the scanning center axis so that the asymmetry of an illuminance distribution, obtained when the scanned surface is scanned with scanning lines, due to variations in components, assembly errors, and the like can be reduced.

According to an aspect of the present invention, there is provided an optical scanning apparatus comprising a laser unit formed by integrating in which a light source and collimator lens are integrated, an incident optical system for making a light beam emerging from the laser unit strike an optical deflector while keeping the light beam wider than a width of a deflecting surface of the optical deflector in a main scanning direction, and an imaging optical system for forming the light beam reflected/deflected by the optical deflector into an image on a scanned surface, wherein the laser unit is adapted to be shifted by shift adjusting means in a predetermined direction with respect to the an optical axis of the incident optical system so as to make an illuminance distribution of scanning lines on the scanned surface become substantially symmetrical about a scanning central axis.

According to another aspect of the present invention, "substantially symmetrical" indicates that an illuminance distribution on the scanned surface falls within  $\pm 5\%$  with respect to the axis in an effective scanning range.

According to still another aspect of the present invention, the predetermined direction is the main scanning direction or/and a sub-scanning direction.

According to still another aspect of the present invention, the light beam emerging from the laser unit is a substantially parallel light beam.

According to still another aspect of the present invention, when the optical axes of the incident optical system and imaging optical system are projected on a main scanning cross-section, the optical axes substantially coincide with each other.

According to still another aspect of the present invention, the light beam emerging from the incident optical system is obliquely incident on the deflecting surface of the optical deflector in a sub-scanning cross-section.

According to still another aspect of the present invention, the light beam emerging from the incident optical system is obliquely incident on the deflecting surface of the optical deflector in a main scanning cross-section.

According to still another aspect of the present invention, the incident optical system is arranged in a main scanning cross-section based on the optical deflector.

According to still another aspect of the present invention, the incident optical system comprises a stop plate, and the laser unit is shifted by the shift adjusting means in a predetermined direction with respect to the optical axis of the incident optical system such that a ratio of intensities of two light beams obtained by splitting a light beam passing through

the stop plate in two in the main scanning direction at a stop center becomes not more than 10%.

According to still another aspect of the present invention, a tilt angle of the light source in the main scanning direction is set to not more than  $\pm 2.5^\circ$  with respect to the optical axis of the collimator lens.

According to still another aspect of the present invention, the laser unit is shifted in advance in the main scanning direction with respect to the optical axis of the incident optical system by an amount corresponding to an incident angle at which the light beam emerging from the incident optical system is obliquely incident on the deflecting surface of the optical deflector in a main scanning cross-section.

According to still another aspect of the present invention, there is provided an image forming apparatus comprising the optical scanning apparatus described above, a photosensitive member placed on the scanned surface, a developing unit for developing an electrostatic latent image formed on the photosensitive member by a light beam scanned by the optical scanning apparatus into a toner image, a transfer unit for transferring the developed toner image onto a transfer medium, and a fixing unit for fixing the transferred toner image on the transfer medium.

According to still another aspect of the present invention, there is provided an image forming apparatus comprising the optical scanning apparatus described above, and a controller for converting code data input from an external device into an image signal, and inputting the signal to the optical scanning apparatus.

According to still another aspect of the present invention, there is provided a

method of manufacturing an optical scanning apparatus including a laser unit formed by integrating a light source and collimator lens, an incident optical system for making a light beam emerging from, the laser unit strike an optical deflector while keeping the light beam wider than a width of a deflecting surface of the optical deflector in a main scanning direction, and an imaging optical system for forming the light beam reflected/deflected by the optical deflector into an image on a scanned surface, comprising the step of causing shift adjusting means to shift the laser unit in a predetermined direction with respect to the optical axis of the incident optical system so as to make an illuminance distribution of scanning lines on the scanned surface become substantially symmetrical about a scanning central axis.

According to still another aspect of the present invention, the predetermined direction is the main scanning direction or/and a sub-scanning direction.

According to still another aspect of the present invention, there is provided a method of manufacturing an image forming apparatus by forming the optical scanning apparatus manufactured by the method described above, and a controller for converting code data input from an external device into an image signal and inputting the signal to the optical scanning apparatus.

According to still another aspect of the present invention, there is provided an optical scanning apparatus comprising a laser unit having a laser source and an optical element configured to emit a substantially parallel beam of light, an incident optical system arranged to direct the light beam emerging from the laser unit to strike an optical deflector while maintaining a width of the light beam wider than a width of a deflecting surface of the optical deflector in a main scanning direction; and an imaging optical system for forming the

light beam deflected by the optical deflector into an image on a scanned surface, wherein the laser unit is adapted to be moved in the main scanning direction without changing a direction of an optical axis of the incident optical system so as to make an illuminance distribution of scanning lines on the scanned surface become substantially symmetrical about a scanning central axis.

According to still another aspect of the invention, there is provided a method for performing optical scanning using an optical scanning apparatus including a laser unit having a laser source and an optical element configured to emit a substantially parallel beam of light, an incident optical system arranged to direct the light beam emerging from the laser unit to strike an optical deflector while maintaining a width of the light beam wider than a width of a deflecting surface of the optical deflector in a main scanning direction, and an imaging optical system for forming the light beam deflected by the optical deflector into an image on a scanned surface, the method comprising the step of moving the laser unit in the main scanning direction without changing a direction of an optical axis of the incident optical system so as to make an illuminance distribution of scanning lines on the scanned surface become substantially symmetrical about a scanning central axis.--